



HEK Media Survey Panel

DISCOVER THE OPTIMAL MEDIA AND PROCESS FOR HEK293 APPLICATIONS

Accelerate Process Development With HEK Media Survey Panel

Timing is critical for bringing gene therapies and vaccines to market. Accelerate process development through higher titers in HEK293 cultures to achieve maximum productivity and efficiency of virus production. HEK Media Survey Panel enables users to quickly and efficiently survey a curated panel of high-quality, scalable HEK media for application development.

Backed by more than 50 years of cell culture media expertise, FUJIFILM Irvine Scientific offers HEK Media Survey Panel to help manufacturers in cell and gene therapy and bioproduction discover the optimal media for increased titers and VG/capsid ratios and speed time-to-market.

- **Proprietary formulations:** Let FUJIFILM Irvine Scientific R&D scientists select a panel of the most effective HEK media and feeds for virus production applications. Our portfolio of chemically defined, animal component-free HEK media satisfy a broad range of application requirements.
- **Comprehensive protocols:** Our team of R&D experts provides comprehensive protocols to evaluate media panels for improved growth, productivity, and quality.
- **Fast turnaround time:** Panel media are in-stock and available in as little as two weeks.*
- **Best-in-class support and service:** We support users from discovery through commercialization by providing on-demand access to our R&D scientists and comprehensive Quality Control and Regulatory systems.

*After review and consultation of panel request is completed.



A proven process for delivering optimal HEK media

HEK Media Survey Panel helps users discover the most effective media for an application while streamlining the process and saving time. Our wide array of high-quality HEK media allows users to discover the optimal media for improving titers and VG/capsid ratios (Figures 1-4). Our R&D scientists provide proven protocols and collaborate with users to improve the process for identifying the best media for higher titers and optimal production.

- **Complimentary consultation with our R&D scientists:** Our Field Application Scientist and R&D team are available in-person and throughout the evaluation process to discuss goals at no additional cost.

Request the
HEK Media
Survey Panel
today!

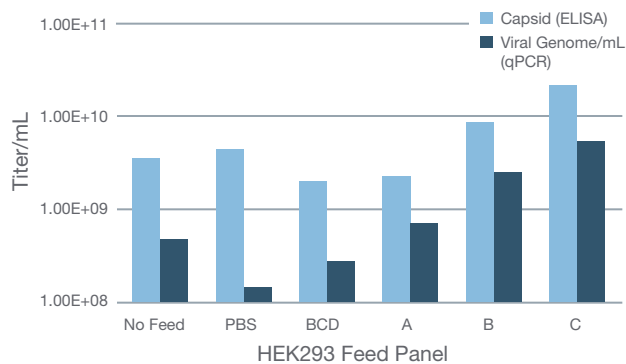
HEK Media Survey Panel feeds improve AAV2 production

The three feeds from the HEK Media Survey Panel were assessed for their effect on AAV2 production and quality of the viral particles. BalanCD HEK293 from FUJIFILM Irvine Scientific was used as the growth medium in all experiments. Cultures with no feed (batch), fed with PBS, and fed with BalanCD HEK293 were used as benchmarks.

Experimental conditions

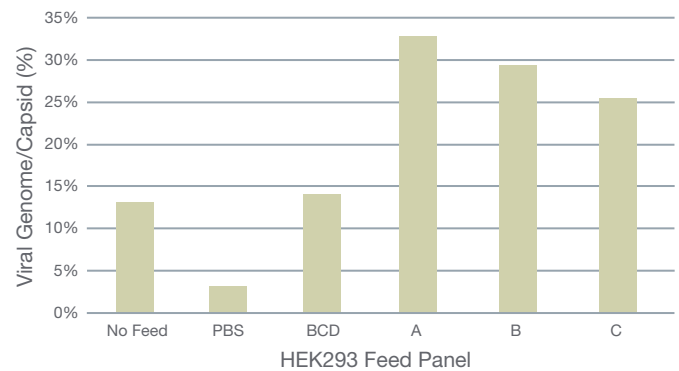
Thermo Expi293 cells at about 2 M cells/mL viable cell density with >95% viability were triple transfected to produce AAV2; 1.5 µg/mL total DNA and 1:2 DNA to PEI ratio were used. Cultures were fed with the corresponding media 24h post-transfection with 12% volume; cells were harvested 72h post-transfection for the virus production analysis. Media and panel feeds used in culture assays were **PBS**: Phosphate Buffered Saline; **BCD**: BalanCD HEK293 from FUJIFILM Irvine Scientific; **A**: IS HEK-CD F21.1; **B**: IS HEK-CD F21.2; **C**: IS HEK-CD F21.3.

Figure 1. Titer of Viral Genome and Capsid per mL



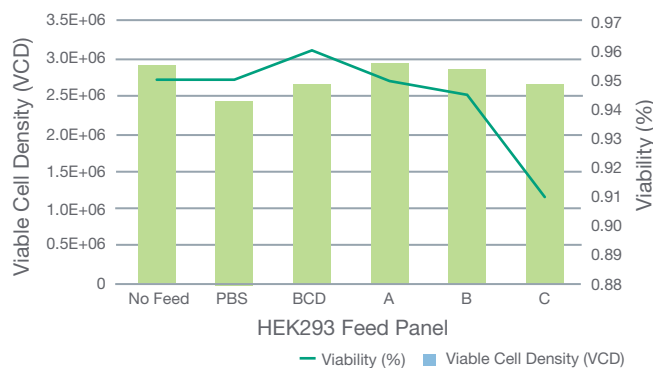
Titer of AAV2 Viral Genome (VG) and Capsid per mL. Applying feed panel media increased the VG and capsid titer over the benchmarks with varying levels of success, demonstrating the benefits of surveying a range of media.

Figure 2. Quality of the Produced Viral Particles



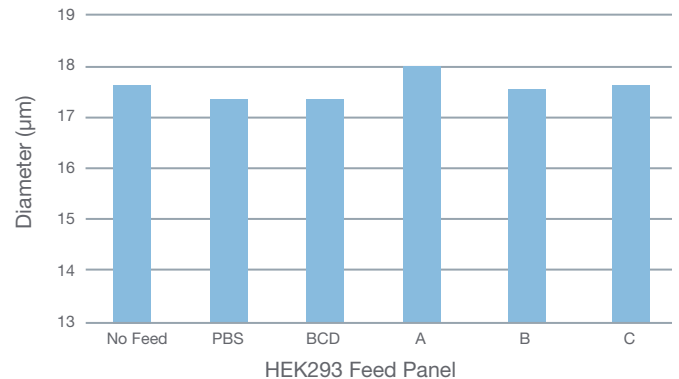
Viral Genome/Capsid ratio. Applying feed panel media enhanced AAV2 assembly and improved the quality of the viral particles.

Figure 3. Viable Cell Density and Percentage of Viability at 72h Post-Transfection



Percentage of viability at 72h post-transfection. Viability indicates that the feed panel media supports high cell viability for the duration of culture and virus production.

Figure 4. Live Cell Diameter (µm)



Cell diameter at 72h post-transfection demonstrates that cell health parameters are maintained upon applying panel feed media and virus production.

Scale-up or optimize HEK media

Once an optimal HEK medium is identified, it can be scaled-up in our Express Media Service, or customized with our Media Development and Optimization services to increase specificity and productivity. All FUJIFILM Irvine Scientific media are designed for scale-up to GMP manufacturing.

Express Media Service

Express Media Service provides rapid, flexible, small-scale media production to expedite time-to-market needs. Media formulations are manufactured in a non-GMP environment using cGMP-grade raw materials, in as little as 10 business days.** Express Media Service can also serve to manufacture small lots and pilot scale lots of media to test the feasibility of scale-up.

Media Optimization Panel

Custom media development services can be performed at the user's laboratory. FUJIFILM Irvine Scientific provides the protocols, instructions, and custom media necessary to perform the cell culture experiments.

Complete Service

FUJIFILM Irvine Scientific conducts all project experiments within our laboratories to develop and deliver a cell culture media solution that meets the user's specific process requirements, such as improved cell growth, maximal titer, and desired product quality.

**Upon customer approval and receipt of PO.

Life Support.

With over 50 years of industry experience, FUJIFILM Irvine Scientific is focused on providing the highest quality cell culture media. We are dedicated to bringing life to products, and ultimately, to the patients who benefit from the resulting therapeutic advances. World-renowned for our unwavering commitment to full-spectrum partnership, FUJIFILM Irvine Scientific has defined the industry standard in support, innovation, and best-in-class turnaround time.

Contact a Media Specialist today at getinfo@irvinesci.com to learn more about the HEK Media Survey Panel and other cell culture media services.

www.irvinesci.com

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Value from Innovation

 IrvineScientific

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